(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 29 December 2005 (29.12.2005)

PCT

(10) International Publication Number WO 2005/124906 A1

(51) International Patent Classification⁷: H01M 4/88

(21) International Application Number:

PCT/KR2005/001410

(22) International Filing Date: 13 May 2005 (13.05.2005)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:

10-2004-0033791 13 May 2004 (13.05.2004) KR 10-2005-0039942 13 May 2005 (13.05.2005) KR

(71) Applicant (for all designated States except US): LG CHEM, LTD. [KR/KR]; 20, Yoido-dong, dungpo-gu, Seoul 150-010 (KR).

(72) Inventors; and

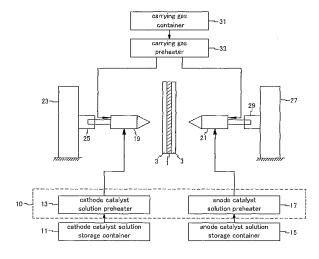
(75) Inventors/Applicants (for US only): PARK, Kyoung-II [KR/KR]; 602-509 Jangmi apt., 273 Hagye-dong, Nowon-gu, Seoul 139-230 (KR). MOON, Go-Young [KR/KR]; 315-101 Songganggreen apt., Songgang-dong, Daejeon-city 305-751 Yuseong-gu, (KR). Hwang-Chan [KR/KR]; 812-501 Yeolmaemaeul apt.,

520-1 Noeun-dong, Yuseong-gu, Daejeon-city 305-768 (KR). LEE, Sang-Hyun [KR/KR]; 256-17, Junggok-dong, Gwangjin-gu, Seoul 143-220 (KR). CHUNG, Ha-Chull [KR/KR]; 116-301 LG apt., Cheongsu-dong, Cheonan-city, Chungcheongnam-do 330-190 (KR). SONG, Seong-Min [KR/KR]; 3-303, 365-98 Deungchon 2-dong, Gangseo-gu, Seoul 157-836 (KR). LEE, Won-Ho [KR/KR]; 112-1005 Gangbyeon apt., Mannyeon-dong, Seo-gu, Daejeon-city 302-741 (KR).

- (74) Agent: YOU ME PATENT & LAW FIRM; Seolim Bldg., 649-10, Yoksam-dong, Kangnam-ku, Seoul 135-080 (KR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR FORMING A MEMBRANE ELECTRODE ASSEMBLY FOR FUEL CELLS



(57) Abstract: A system for manufacturing a membrane electrode assembly for a fuel cell according to an embodiment of the present invention includes a catalyst solution preheating device, a carrying gas preheater, a cathode catalyst solution spray nozzle, and an anode catalyst solution spray nozzle. The catalyst solution preheating device preheats a cathode catalyst solution and an anode catalyst solution. The carrying gas preheater preheats a carrying gas. The cathode catalyst solution spray nozzle is supplied with the cathode catalyst solution preheated by the catalyst solution preheating device and the carrying gas preheated by the carrying gas preheater, and is configured to spray the supplied cathode catalyst solution. The anode catalyst solution spray nozzle is supplied with the anode catalyst solution preheated by the catalyst solution preheating device and the carrying gas preheated by the carrying gas preheater, and is configured to spray the supplied anode catalyst solution.



WO 2005/124906 A1

GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.